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उत्पाद मैनुअल

Textiles - Manila Ropes

IS 1084: 2005 के अनुसार

**PRODUCT MANUAL
FOR Textiles - Manila Ropes
ACCORDING TO IS 1084: 2005**

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 1084: 2005
	शीर्षक Title	:	Textiles - Manila Ropes
	संशोधनों की संख्या No. of amendments	:	03
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The fiber, yarn, lubricant and Rot-proofing agent(if applicable) shall conform the requirements mentioned in Cl 6.1, 6.2, 6.5 & 6.6 respectively. Conformity may be established through supplier's test certificate of raw material, or test report of BIS recognized/empanelled lab or NABL accredited lab or in-house testing. Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer Annex –A

c)	नमूने का परिमाण Sample Quantity	:	10 Mtrs Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	Complete tests is possible in a day. In case of dispute, however, tests shall be carried out on samples which have been conditioned for 24 h in an atmosphere at 65 ± 2 percent relative humidity and $27 \pm 2^\circ\text{C}$ temperature Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा /Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 1084: 2005 with the following scope:		
	Name of the product	Textiles - Manila Ropes	
	Type	3 – Strand Hawser Laid / 4 – Strand Shroud Laid / 9 – Strand Cable Laid	
	Grade	Grade 1 or Grade 2	
	Sizes	Diameter in mm	
	Any other aspect required as per the Standard	With or without Rot-Proofing Treatment	

ANNEX-A

GROUPING GUIDELINES

In IS 1084:2005, Manila Ropes are on the basis of breaking strength (Grade 1 and 2), the type of the rope (howser-laid, shroud-laid, and cable-laid), and the size (diameter of the rope).

Accordingly for the purpose of grant of licence/change in scope of licence, following grouping guidelines shall be followed:

Type of Rope	Sizes (Dia)	Samples to be tested
Howser-laid	Dia 8 mm to 24 mm	One sample of each Grade (1 and 2) of any size (dia.) within this range and any length
	Dia 26 mm to 56 mm	-do-
	Dia 60 mm to 128 mm	-do-
Shroud-laid	Dia 8 mm to 24 mm	One sample of each Grade (1 and 2) of any size (dia.) within this range and any length
	Dia 26 mm to 56 mm	-do-
	Dia 60 mm to 128 mm	-do-
Cable-laid	Dia 40 mm to 64 mm	One sample of each Grade (1 and 2) of any size (dia.) within this range and any length
	Dia 72 mm to 144 mm	-do-

Scope of licence shall be restricted based on the manufacturing and testing facilities available.

During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible

ANNEX – B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Angle of Lay, Cl.6.4.1	Bevel Protractor
2	Lubrication, Cl.6.5	Soxhlet Apparatus, Hot air oven, Balance
3	Rot Proofing, Cl 6.6	Zinc or copper based rot proofing agent For Estimation of Zinc (As per Cl. 11 of IS 3522 Part1:1989 - Reagents: Sodium Acetate, Acetic Acid, Ammonia Sol, Ammonium Chloride, 8- hydroxyquinoline, Hydrochloric acid, Nitric Acid, Sulphuric Acid, Potassium Bromate, Sodium Thiosulphate, Potassium Iodide, Methyl Red Indicator, Soluble Starch Indicator - Apparatus: Kjeldahl flask, Analytical Balance, Bunsen Burner, Steam Bath, titration apparatus and other laboratory glassware For Estimation of Copper (As per Cl. 11 of IS 3522 Part1:1989 - Reagents : Benzene or petroleum ether, Hydrochloric Acid, Nitric Acid, Ammonia Solution, Copper sulphate or electrolytic copper - Apparatus: Soxhlet Apparatus, Extraction Flask, Analytical Balance, Colorimeter/Standard Copper Solution in Nessler Tubes
4	Mass & Length of the coil etc., Cl. 8.1 to Cl.8.3	Balance, capable of weighing to an accuracy of 1 percent, Measuring tape
5	Mass & Length of the coil etc., Cl. 8.1 to Cl.8.3	Measuring Tape, calibrated in Mtr, and mm
6	Mass & Length of the coil etc., Cl. 8.1 to Cl.8.3	Tensioning Device
7	The diameter of the rope, Cl.8.4	Rope Gauge or a Pair of Calipers
8	Breaking Strength, Cl.8.5	Tensile Testing M/c

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is : all the coils of rope of one type (refer clause 1 of IS 1084: 2005), grade (refer Clause 4 of IS 1084: 2005) and diameter manufactured in a day under similar condition.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing commoncluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the labels attached at both the ends of each coil of manila rope, provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: The material shall also be marked with the following additional requirement on the labels attached at both the ends of each coil of manila rope:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S:Sub-contracting permitted	Levels of Control		
Clause	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
6.1	Manila Fibres	6.1	IS 1084 : 2005	R	Firm to have adequate in-process controls to check compliance of this requirement of the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
6.2	Yarn	6.2	IS 1084 : 2005	R	One	Each Control Unit	
6.3 & Table 1,2 & 3	Strands	6.3	IS 1084 : 2005	R	One	Each Control Unit	No. of strands in the rope and the lay of rope, unless otherwise specified shall be as given in ISS.
6.4	Ropes	6.4	IS 1084 : 2005	R	One	Each Control Unit	
6.5	Lubrication	6.5	IS 1084 : 2005	R	One mixing fibres	Every mixing	
6.6	Rot-proofing Treatment	6.6	IS 1084 : 2005	R	One mixing fibres	Every mixing	Only required for rot-proofed ropes.
8.1	Mass of Coil	8.1	IS 7071 (Pt-2)	R	3 coils of Rope	Each control unit	
8.2	Pitch	8.2	IS 7071 (Pt-1 to 3)	R	3 coils of Rope	Each control unit	
8.3	Length of coil	8.3	IS 7071 (Pt-1 to 3)	R	All coils of ropes	Each control unit	Length in the coils may also be as agreed to between the buyers and the seller.